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DO BETTER POLITIES HAVE HIGHER ECONOMIC GROWTH?

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IRIS Summary **Working Paper No. 113**
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Many people hold strong opinions about the economic implications of various forms of governance. Yet these views are seldom buttressed with systematic evidence. A recent book by Gerald Scully argues, after ingenious manipulation of cross-country data, that what might be called "better polities" have higher economic growth rates. For example? governments that consume less as a proportion of gross domestic product and that grant more political and civil rights grow faster than those that do not, after controlling for some other relevant variables. The present paper, which analyzes data from 71 poor countries, confirms Scully's findings. But its abiding message is that despite welcome new data sets and analyses, statistical studies of the effects of government on economic performance are severely constrained. Measurement is a problem; model specification is a problem; and we simply have no data or model to incorporate the many important and interacting ways that government influences economic performance. To do a better job of figuring out how governance affects growth (and other outcomes) we must complement econometric studies with the kinds of research that institutional economists, political scientists, and historians can provide.

Do Better Polities Have Higher Economic Growth?[1]

Robert Klitgaard[2]
May 1994

Once upon a time economists and political scientists jumped quickly from discerning a market failure to calling for state intervention. As Joseph Schumpeter once pointed out, the faith in the benevolence and competence of the state was touchingly naive.[3] No longer. Recent research, and certainly the prevailing mood among those practicing economics around the developing world, has been much less credulous. Indeed, even the economists who show why untrammeled competition seldom leads to optimality are usually quick to point out that governments cannot be counted on to do better.[4] Markets do not work well when information is scarce and ignorance widespread, and these conditions prevail in many developing countries. But states also fail, especially under those same conditions. If markets and states both can fail, what can one say about the type of polity that aids economic growth?

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[1] Thanks to Chris Clague, Raphael de Kadt, Philip Keefer, Mancur Olson, Roger Raab, and Mary Shirley for helpful comments, not all of which could be incorporated.

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[3] "It still remains true," Schumpeter wrote in 1949, "that a large majority of economists, when discussing issues of public policy, automatically treated political authority and especially government in the modem representative state as a kind of deity that strives to realize the will of the people and the common good . . . Policy is politics; and politics is a very realistic matter. There is no scientific sense whatever in creating for one's self some metaphysical entity to be called 'The Common Good' and not a less metaphysical 'state,' that, sailing high in the clouds and exempt from and above human struggles and group interests, worships at the shrine of that Common Good. But the economists of all times have done precisely this." Joseph A. Schumpeter, "The Communist Manifesto in Sociology and Economics," *Journal of Political Economy,* Vol. 57, No. 3 (June 1949), pp. 205-6.

[4] See, for example, George A. Akerlof, "The Market for 'Lemons"', esp. p. 488; Joseph E. Stiglitz, "Information and Economic Analysis: A Perspective," *Economic Journal, Supplement,* Vol. 95 (1985), esp. pp. 27-8; Joseph E. Stiglitz, "Markets, Market Failures, and Development," *American Economic Review Papers and Proceedings,* Vol. 79, No. 2 (May 1989), esp. p. 202; David M. Newbery, "Agricultural Institutions for Insurance and Stabilization," *in The Economic Theory of Agrarian Institutions,* ed. Pranab Bardhan (Oxford: Clarendon Press, 1989), esp. pp. 294-5.

One idea is to look at systematic evidence across countries. This step, alas, is taken less often in discussions of state and market than one might hope, or than some might pretend. Assessing the evidence proves less easy than one might think. Consider, for example, what may seem a straightforward question. Do bigger governments lead to more or less economic growth?

The Size of the State

A number of studies have attempted to see whether larger states, and more state intervention in the economy, lead to healthier economies. Measurement is precarious. The usual dependent variable is growth in the gross domestic product. That this is an incomplete conceptual representation of "development" has been argued many times, perhaps most forcefully in recent years by the new series of *Human Development Reports* published by the United Nations. Moreover, international comparisons of GDP growth proceed in the face of great unreliability within countries and unknown differences in reliability across countries. Alan Heston suggests that a reasonable 95 percent confidence interval on a developing country's growth rate might be ±3 percent, "so that an estimated growth rate of 3% was likely to be between 0% and 6%." The corresponding figure for "advanced" countries, estimated from adjustments made between preliminary and final quarterly estimates in a sample of OECD countries, might be ±1.6. This is *within* given countries.[5] The variation in growth rates across countries is subject to further errors because countries use different methods to calculate GDP. No wonder that recent longitudinal studies find that country growth rates, even averages of growth rates over

[5] Alan Heston, "A Brief Review of Some Problems in Using National Accounting Data in Level Comparisons and Growth Studies," paper presented at the Conference on Data Base of Development Activities, Yale University, May 15-16 1992, p. 11. He cites Derek Blades, "What Do We Know about Levels and Growth of Output in Developing Countries? A Critical Analysis with Special Reference to Africa," in *Economic Growth and Resources, Proceedings of the Fifth World Congress, International Economic Association, Vol. 2, Trends and Factors,* ed. R.C.O. Mathews (New York: St. Martin's Press, 1980).

decades, are weakly correlated over time.[6] Sheer unreliability of measurement might account for much of that.[7]

Problems also attend the measurement of the size of the state. Some scholars use government spending as a percentage of GDP. Others prefer government "consumption." Others use the percentage of the formal sector work force employed by government. These measures behave quite differently, as rich countries tend to have governments that spend higher percentages of GDP but employ lower percentages of the work force.[8] Neither measure, of course, directly assesses the extent of state intervention in the economy through laws, rules, regulations, price controls, and so forth.

Thus, we begin with unclear concepts and imperfect measures. And then, when we try to relate a measure of the size of the state (or changes in same) to measures of the size of an economy (or changes in that), we encounter a range of econometric problems, including the need to specify a model of economic growth, non-normality, the non-independence of certain "independent" variables, heteroskedasticity, and so forth. Using different specifications, researchers have obtained different answers.[9]

A recent book by Gerald Scully employs a variety of techniques on new data. He examines as dependent variables growth rates and efficiency measures based on aggregate

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[6] William Easterly *et al.*, "Good Policy or Good Luck? Country Growth Performance and Temporary Shocks," paper presented at the conference "How Do National Policies Affect Long-run Growth?" Washington, D.C., February 1993.

[7] Easterly et *al.* find that growth rates over time correlate around 0.3, which my own research for successive five-year periods confirms, barring one or two country outliers. The highest correlation that could occur between two measurements is the square of the measure's reliability coefficient. Thus, if the reliability of measure of the GDP growth rate were 0.6, then even if the underlying "true" growth rates over time were perfectly correlated, we would expect to observe a correlation of $0.6^2=0.36$ between time 1 and time 2.

[8] Peter S. Heller and Alan A. Tait, *Government Employment and Pay: Some International Comparisons*, OP no. 24 (Washington, D.C.: International Monetary Fund, 1983).

[9] For example, Landau and Marlow find that bigger governments are associated with lower growth rates, while Ram finds the opposite. Daniel Landau, "Government Expenditure and Economic Growth: A Cross-Country Study," *Southern Economic Journal*, Vol. 49 (January 1983); Michael L. Marlow, "Private Sector Shrinkage and the Growth of Industrialized Economies," *Public Choice*, Vol. 49 (1986), pp. 143-54; and Rati Ram, "Government Size and Economic Growth A New Framework and Some Evidence from Cross-section and Time Series Data," *American Economic Review*, Vol. 76, No. 2 (March 1986). On the general problem of specification, see Ross Levine and David Renelt, "A Sensitivity Analysis of Cross-Country Growth Regressions," *American Economic Review* Vol. 82, No. 4 (September 1992).

production functions. His independent variables include capital, labor, and levels and changes in government spending as a percentage of GDP. Scully concludes:

> Nations with relatively large government shares in 1960 on the whole grew more slowly than nations with relatively small state sectors. Inter-period increases in the size of government were associated with lower growth rates . . .
>
> Government allocation of resources is thought to be less efficient than private allocation. For the first time in the literature, this hypothesis was tested directly be comparing efficiency measures with the measures of the size of the government sector. It was found that the size of the government share in the economy was negatively correlated with economic efficiency and with the interperiod change in economic efficiency. Nations with relatively large public sectors produced a lower standard of living with the same input ratio than did nations with relatively small government sectors.[10]

Let us explore Scully's hypotheses using a different data set from his. Figure 1 is a histogram of the average percentage of GDP that went to government "consumption" in a sample of 71 developing countries with populations over 1 million. [11] Figure 2 shows the scatter plot of this variable and average annual growth in real GDP per capita (measured in purchasing power parity terms) from 1970 to 1985. The trend is downward (r = -0.3 1), but clearly there are many exceptions.

After controlling for the logarithm of GDP in 1970 and for the average ratio of total public and private investment to GDP during the time period, a one percentage point increase in government consumption is associated with about a 0.15 percentage point decrease in the average annual growth rate. Putting it another way: a country at the 25th percentile in government consumption spent only 15.5 percent of GDP, while a country at the 75th percentile spent 24.6 percent. Given the same GDP per capita starting points and the same ratio of investment to GDP, the 25th percentile country in government consumption would be expected to have an average annual rate of per capita growth that is about 1.3 percentage points higher than a country at the 75th percentile.12

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10 Gerald *W.* Scully, *Constitutional Environments and Economic Growth* (Princeton: Princeton University Press, 1992), pp. 210-1.

11 I am grateful to Robert Barro and Holger Wolf for this data set, which I have edited.

12 There are, of course, many exceptions. And over time, as Wagner's Law asserts, until recently richer countries have preferred to have larger governments. By the way, in this sample, the

INSERT FIGURES 1 AND 2 ABOUT HERE

A separate question concerns the effects of government interventions such as price controls, tariff policies, financial policies, and exchange controls. A separate paper would be needed to detail the problems of comparison across countries. Here I can only briefly state the results of my own preliminary explorations using the data set prepared by the World Bank for the *1991 World Development Report*.[13] None of the various proxies for economic policies, such as the gap between the official and the black market exchange rate or World Bank officers' subjective ratings of the "openness" of the economy, helped explain patterns of growth in poor countries since 1960. Further work is underway, and better data sets are being assembled that may permit better answers in the near future.

Political and Economic Rights

Another way to think about "good government" concerns the political, civil, and economic rights they provide or allow. As it happens, a variety of scales have been constructed that attempt to measure various political rights. The most widely used is by Raymond D. Gastil, who since 1973 has constructed these indices annually.[14] Using a host of subjective criteria, he rates countries on the political rights enjoyed by their citizens from 1 (highest degree of liberty) to 7 (lowest). Among the criteria are the

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correlation between investment/GDP and government spending/GDP is not significantly different from zero (r = -0.10).

[13] Subtitled *The Challenge of Development (New* York: oxford University Press for the World Bank, 199 1). Thanks to Elaine Klitgaard for her invaluable help in distilling and analyzing this large and problematic data set--which contains clear coding errors that we have attempted to correct--and to Lawrence Summers for making it available.

[14] Raymond Gastil, *Freedom in the World* (New York: Freedom House, 1989). I cannot resist a brief anecdote. Two years ago in Paris, Gastil and I happened to spend some time together. Thinking he would be delighted, I told him of my and other people's new work using his scales of political and civil rights as two among many regressors in models of economic growth. But Gastil was not delighted. "These data were not intended to be used in economic predictions," he said. "They are not cardinal measures. They are simply rough descriptions nf various political and civil rights across countries." I explained that one could use various techniques to scale ordinal variables to guard against possible non-linearities. But even after a cordial lunch and dinner together, we seemed stuck on different wave-lengths. I fear that Gastil will not like Scully's (nor my) use of his variables for purposes he did not intend.

"meaningfulness of elections," the degree of political competition, and decentralization of power. He also rates countries from 1 to 7 on civil liberties, such as freedom of speech, equal protection under the law, and freedom of association. [15] Figure 3 shows Gastil's index of political liberties for 71 developing countries in 1987.

INSERT FIGURE 3 ABOUT HERE

Scully averaged Gastil's indices over the period 1973 to 1980. Then he created a series of dummy variables, such as "politically open" if the Gastil index is less than 2 and "politically closed" if the Gastil index is greater than or equal to 5. For 115 "market economies" Scully estimated the effects of political, economic, and private property rights on compound growth rates in per capita income from 1960 to 1980. The results were striking. "On average, politically open societies grew at a compound real per capita rate of 2.5 percent per annum, compared to a 1.4 percent growth rate for politically closed societies." Similarly, "societies that subscribe to the rule of law" grew at a 2.8 percent clip, compared to 1.2 percent in countries at the other extreme; and "societies that subscribe to private property rights and a market allocation of resources" averaged 2.8 percent growth compared to 1.1 percent among societies that emphatically did not.[16] He confirmed these results qualitatively in additional regressions using Solow-style residuals as the dependent variable.

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[15] Here is a more complete list of the criteria. For the political rights scale, Gastil looks at the meaningfulness of elections for the executive and legislature as an expression of the will of the polity, election laws and campaigning opportunities, voting power of the electorate (electoral vote weighing), political competition (multiple political parties), evidence of political power shifting through elections, significant opposition voting, freedom from external and military control of domestic politics, minority self-determination or pluralism, decentralization of political power, and the attempt of political agents to reach a consensus on national issues.

Criteria for civil liberty include freedom of the press from political censorship, freedom of speech, freedom of assembly and peaceful demonstration, freedom to organize for political purposes, equal protection under the law, fi-eedom from arbitrary search and seizure of property, an independent judiciary, freedom from arbitrary imprisonment, freedom from government terror and abuse, free trade unions and worker associations, free business and professional associations, freedom of religion, protected social rights (including fi-eedom of property, internal and external travel, choice of residence, marriage, and family), socioeconomic rights (including freedom from dependency on landlords, bosses, union leaders, or bureaucrats), freedom from gross socioeconomic inequality, and freedom from gross government indifference or corruption.

[16] Scully, p. 176.

Let us turn again to our a narrower sample of 71 developing countries. Figure 4 plots GDP growth rates from 1970 to 1985 against the political liberties variable. Table 1 summarizes several regression analyses over two time periods, 1970- 1985 and 1960-1985. The regressor variables include a measure of the average ratio of public and private investment to GDP(I/GDP), the level of GDP in the first year of the period (GDPlev), a measure of government "consumption" (G/GDP), Gastil's index of political liberties in **1987 (Pol),** and Gastil's index of civil liberties in 1987 (Civ).

INSERT FIGURE 4 ABOUT HERE

Table 1
Regression Results on Average Rates of Real Per Capita Growth

Depv	Constant	logGDPlev	G/GDP	I/GDP	Pol	R^2adj
(1) Growth 1960-1985	9.95	-1.09	-10.73	16.06	-0.34	
	(3.80)	(-3.19)	(-2.97)	(2.97)	(-2.68)	0.38
(2) Growth 1970-1985	11.56	-1.36	-14.61	19.94	-0.34	
	(3.47)	(-3.81)	(-2.41)	(4.92)	(-2.06)	0.36

Notes: *t* statistics are in parentheses. N = 71 developing countries with populations over 1 million. The dependent variable is measured in percentage points (average annual real growth per capita over the period); GDPlev is measured in real per capita terms (PPP) in $000. G/GDP and I/GDP at-e ratios. Source of data: **Robert Barro** and Holger Wolf. based on several other sources.

Both government consumption and restricted political liberties (remember, the index has 1 as the best rating, 7 as the worst) are negatively related to growth rates. For 1970-1985 a country at the 25th percentile (good) of political rights would have a Gastil index of 4.1 and would be expected to have an annual growth rate about two-thirds of a percentage point higher than a country with the 75th percentile Gastil score of 6, after statistically controlling for the other variables.[17] We would expect that the annual growth

[17] From 1970 to 1985 I/GDP and Pol are correlated -0.28 and curiously there is a slightly positive though statistically insignificant correlation between I/GDP and Pol (0.065).

rate of a country with a relatively "bad" political rights rating of 6 would be about 1.4 percentage points lower than a country with a relatively "good" rating of 2. Once again, we should note that there are many exceptions. These variables explain only a little over a third of the variance in growth rates.

Limitations of Cross-Sectional Statistical Studies

Such comparisons across countries and time periods have obvious interest but also many limitations. Causality is of course a question mark; we have been talking only about statistical associations.[18] But before doing the combined cross-sectional and time-series studies that would enable us to examine how changes in governmental variables, changes in investment, and changes in growth interrelate, we should stop to consider the limitations in available data sets. Unfortunately, many variables we would want to include are simply not available.

Governments can be good or bad for economic development in many ways. For example, public policies can:

- vest rights;
- change prices for goods, services, money, and factors of production, and constrain the use of same;
- change information structures;
- change factor endowments through redistribution and investment;
- adjudicate--indeed preempt--disputes, bargaining, contracts, and mechanisms for coordination and control;
- produce goods and services;
- mobilize resources; and
- create (reinforce) values, tastes, and preferences.

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[18] For example, the causal relationships between investment and growth are unclear. As Paul Romer observes, "It could be that exogenous variation in investment rates causes variation in the growth rate. It could be that exogenous variation in the growth rate causes variation in the investment share. Or it could be that exogenous variation in some omitted variable affects both growth and the investment share." Paul Romer, "Idea Gaps and Object Gaps m Economic Development," paper presented at the conference "How Do National Policies Affect Long-Run Growth?" Washington, D.C., February 8-9, 1993, p. 24. The quality of government and market institutions may well be such omitted variables.

Few of these effects are measured in cross-country statistical studies. To examine their importance, we need to go beyond statistical comparisons and refer to case studies, policy histories, and other sorts of research.

Missing variables matter in another way. Cross-country comparisons do not adequately take account of the *contexts* of different countries. Intervening variables such as changes in terms of trade, measures of country size, level of average income, and region may be helpful. But case studies and historical research suggest that many features of the economic, political, and cultural environment affect the adoption, implementation, and success of policies.[19] Policy variables interact with a host of omitted variables, and therefore conventional estimates of their impact are biased in unknown ways. It should not be surprising that cross-country research that implicitly treats heterogeneous countries as a sample from a homogenous population should yield weak results.

True, we see that governments that consume less and grant more liberties do tend to have higher rates of economic growth--although there are many exceptions. But the abiding message is how limited are cross-country statistical studies to answer many of the questions we would like to address. It may be remarkable that people have such strong and divergent views about appropriate economic roles for the state, given that cross-country statistical evidence seems able to say so little about the kinds of government interventions that lead to growth. But we should not upon reflection find it remarkable that, for the reasons I have mentioned, econometric evidence will fail to provide the kinds of evidence to support or reject those views. Available measures are weak, even of economic performance; models of growth are unsatisfactory; and for many of the variables we "know" must matter we simply have neither data nor model.

And so, to understand how better governments may contribute to better economies, we must add other sorts of insight and evidence. In particular, as I have argued elsewhere, we should apply the economics of information to the problem of making governments work better and simultaneously look at efforts around the globe to make the

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[19] *See,* for example, Cynthia Taft Morris and *Irma* Adelman, *Comparative Patterns of Economic Development, 1850-1914* (Baltimore: Johns Hopkins University Press, 1988), and Marc M. Lindenberg's comparisons of the findings of statistical, historical, and case study research on development, *The Human Development Race: Improving the Quality of Life in Developing Countries* (San Francisco: ICS Press and International Center for Economic Growth, 1993).

institutions of government function more justly and effectively.[20] In these efforts political scientists, historians, and economists should be working more closely together.

[20] Robert Klitgaard, *Adjusting to Reality: Beyond "State vs. Market" in Economic Development* (San Francisco: ICS Press and International Center for Economic Growth, 1991), especially chs. 6-9.

Figure 1
A Measure of Size of Government

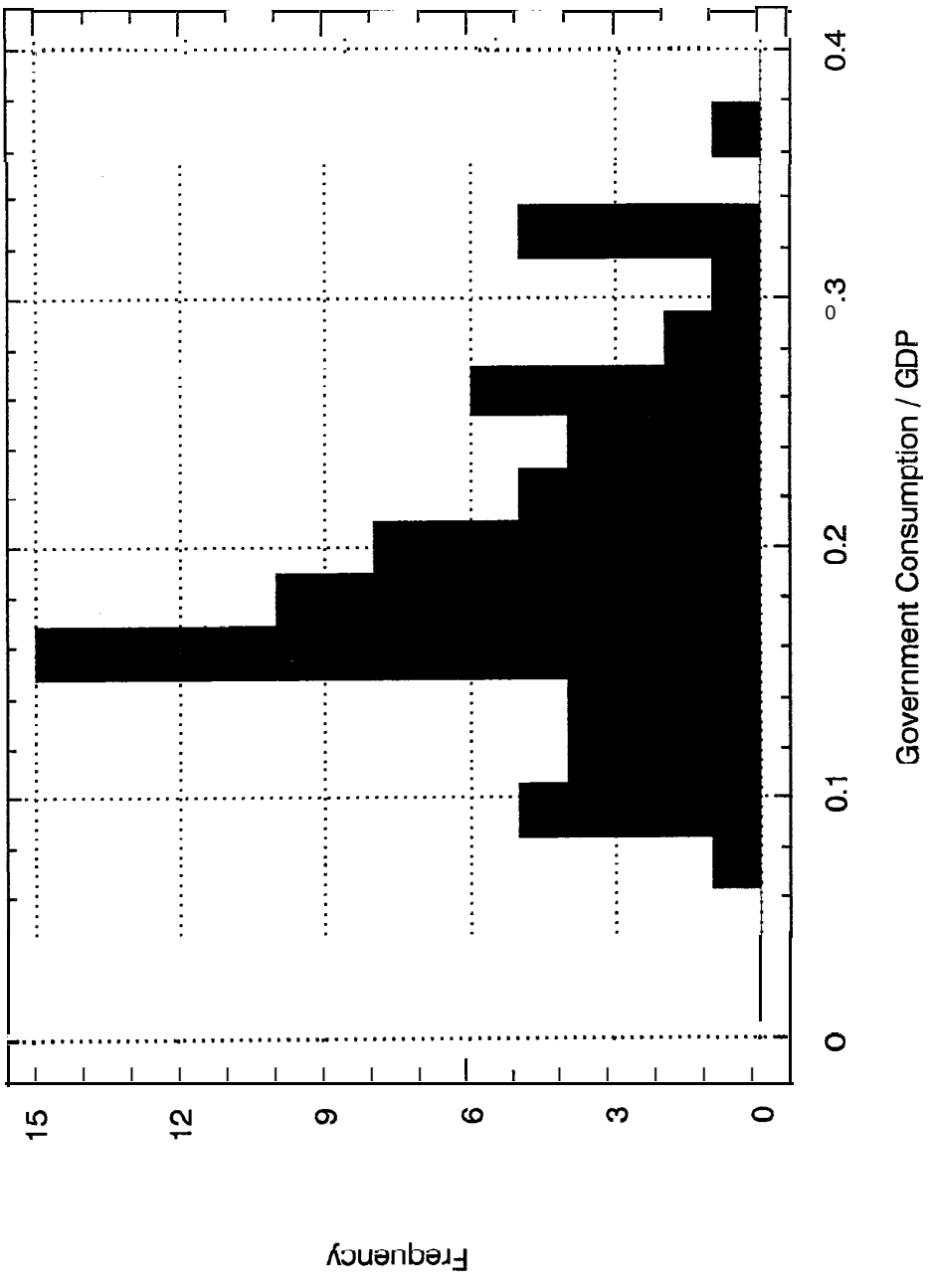

Figure 2

Size of Government and Growth, 1970-I 985

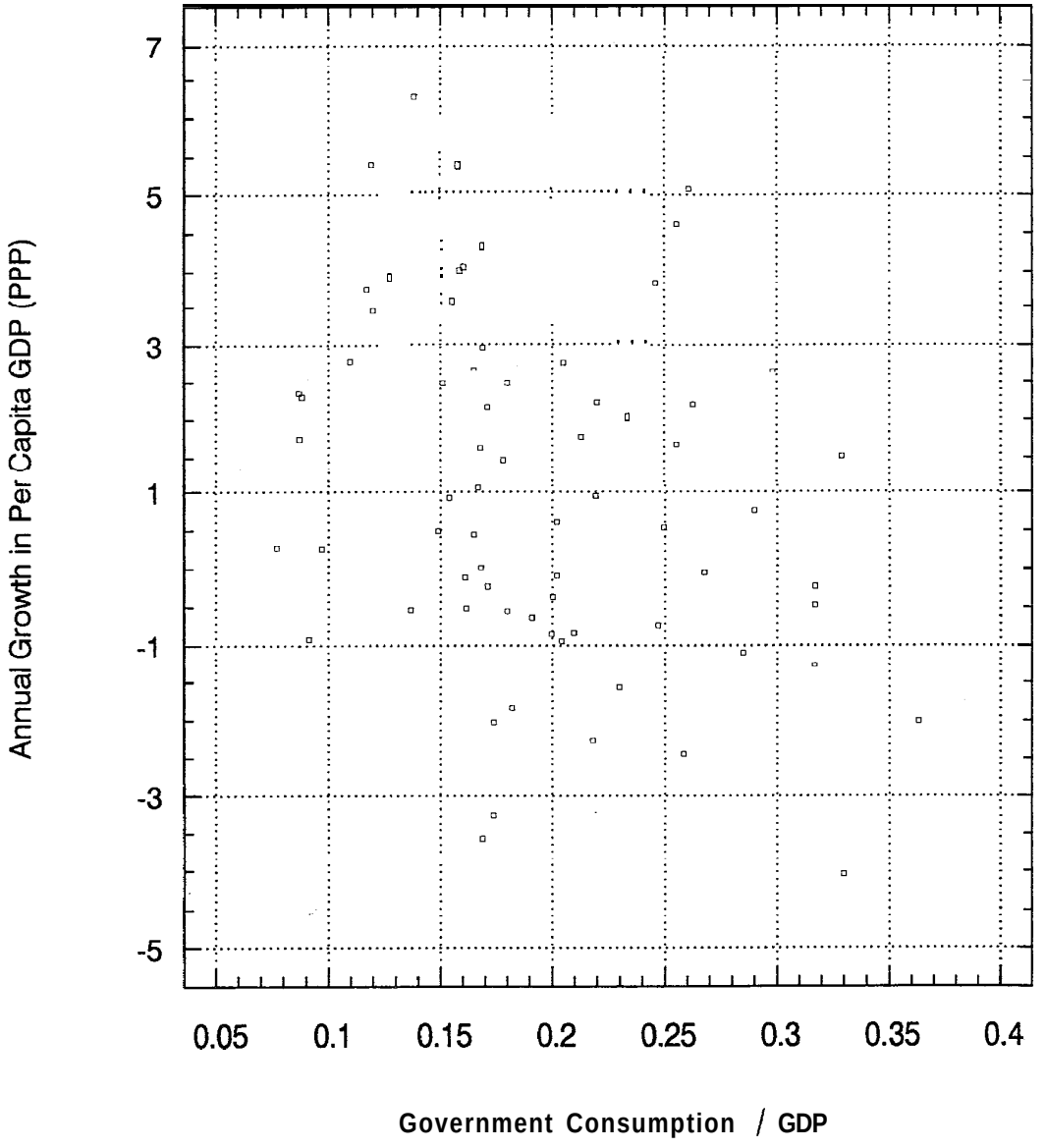

Figure 3
Political Rights

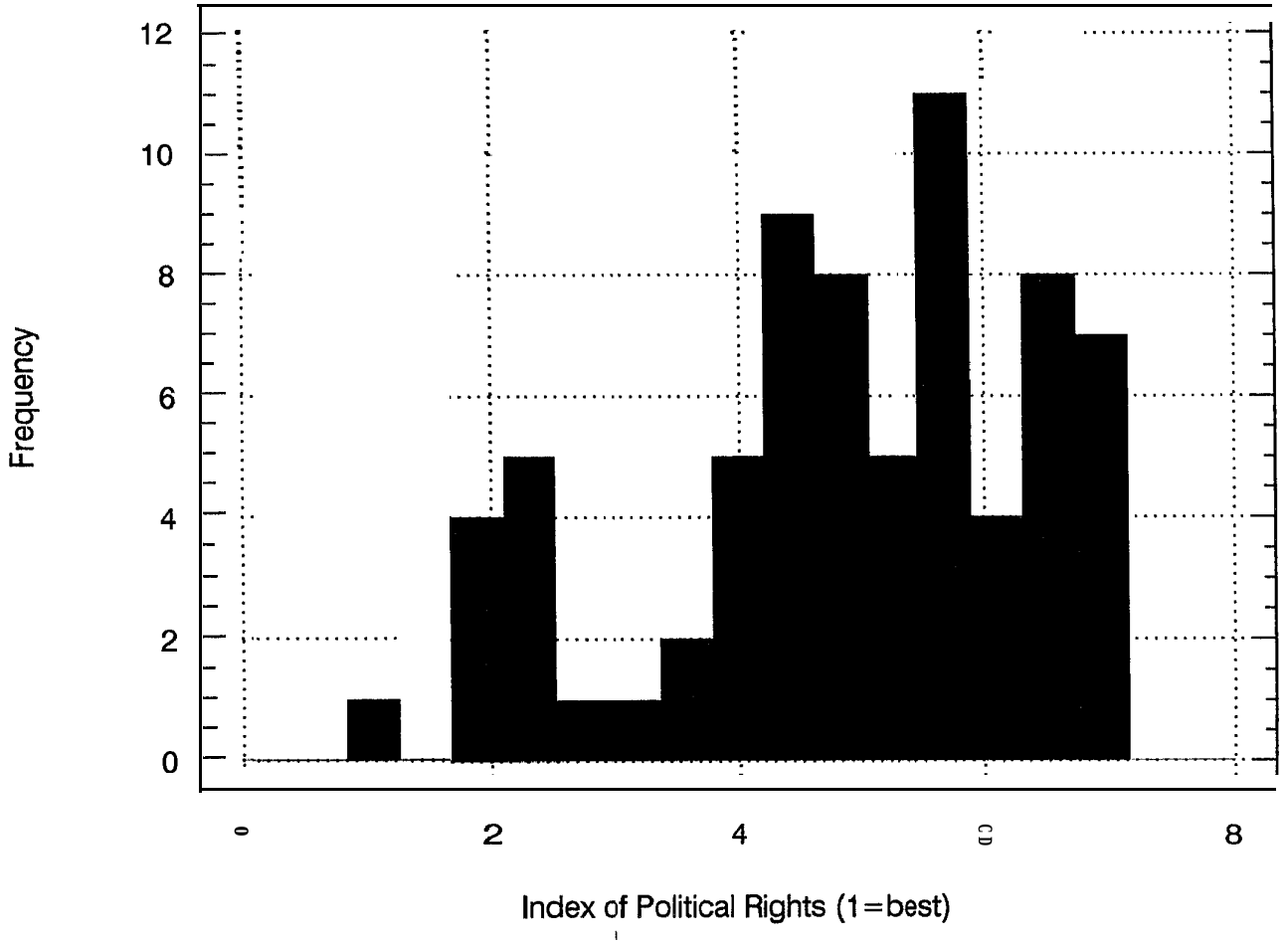

Figure 4

Political Rights and Growth, 1970-I 985